

re-NN

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/501, 6/1A  
Source: IFWP  
Date Processed by STIC: 9/14/06

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IFWP

## RAW SEQUENCE LISTING

DATE: 07/14/2006

PATENT APPLICATION: US/10/501,611A

TIME: 14:48:49

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Output Set: N:\CRF4\07142006\J501611A.raw

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1 <110> APPLICANT: Pavan, William J.
2   Loftus, Stacie K.
3   The Government of the United States of America
4   as represented by The Secretary of the
5   Department of Health and Human Services
6 <120> TITLE OF INVENTION: Alteration of RAB38 Function to Modulate Mammalian
7   Pigmentation
8 <130> FILE REFERENCE: 015280-148100US
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/501,611A
10 <141> CURRENT FILING DATE: 2004-07-14
11 <150> PRIOR APPLICATION NUMBER: US 60/349,929
12 <151> PRIOR FILING DATE: 2002-01-18
13 <150> PRIOR APPLICATION NUMBER: WO PCT/US03/01622
14 <151> PRIOR FILING DATE: 2003-01-17
15 <160> NUMBER OF SEQ ID NOS: 28
16 <170> SOFTWARE: PatentIn Ver. 2.1
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 8
20 <212> TYPE: DNA
21 <213> ORGANISM: Mus musculus
22 <220> FEATURE:
23 <223> OTHER INFORMATION: Rab38 sequence of wildtype allele in C57Bl6/J +/-
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26   ctgggtgt                                     8
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29 <211> LENGTH: 8
30 <212> TYPE: DNA
31 <213> ORGANISM: Mus musculus
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Rab38 sequence of chocolate (cht) mutant allele in
34   c57Bl6/J Rab38cht/+ DNA
35 <400> SEQUENCE: 2
36   ctggkgtgt                                     8
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39 <211> LENGTH: 34
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42 <220> FEATURE:
43 <223> OTHER INFORMATION: human RAB38 highly conserved N-terminal region
44 <400> SEQUENCE: 3
45   Met Gln Ala Pro His Lys Glu His Leu Tyr Lys Leu Leu Val Ile Gly
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47      Asp Leu Gly Val Gly Lys Thr Ser Ile Ile Lys Arg Tyr Val His Gln
48                20                25                30
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57 <400> SEQUENCE: 4
58      Met Gln Thr Pro His Lys Glu His Leu Tyr Lys Leu Leu Val Ile Gly
59      1                5                10                15
60      Asp Leu Gly Val Gly Lys Thr Ser Ile Ile Lys Arg Tyr Val His Gln
61                20                25                30
62      Asn Phe
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66 <212> TYPE: PRT
67 <213> ORGANISM: Mus musculus
68 <220> FEATURE:
69 <223> OTHER INFORMATION: mouse RAB38 highly conserved N-terminal region
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72      1                5                10                15
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74                20                25                30
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78 <211> LENGTH: 47
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83 <400> SEQUENCE: 6
84      Met Ala Ser Ala Thr Asp Ser Arg Tyr Gly Gln Lys Glu Ser Ser Asp
85      1                5                10                15
86      Gln Asn Phe Asp Tyr Met Phe Lys Ile Leu Ile Ile Gly Asn Ser Ser
87                20                25                30
88      Val Gly Lys Thr Ser Phe Leu Phe Arg Tyr Ala Asp Asp Ser Phe
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93 <212> TYPE: PRT
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95 <220> FEATURE:
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98      Met Ala Ser Arg Gly Ala Thr Arg Pro Asn Gly Pro Asn Thr Gly Asn
99      1                5                10                15

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100      Lys Ile Cys Gln Phe Lys Leu Val Leu Leu Gly Glu Ser Ala Val Gly
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103              35              40              45
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108 <213> ORGANISM: Homo sapiens
109 <220> FEATURE:
110 <223> OTHER INFORMATION: human N-RAS N-terminal region
111 <400> SEQUENCE: 8
112      Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Gly Gly Val Gly Lys
113              1              5              10              15
114      Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe
115              20              25
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119 <212> TYPE: DNA
120 <213> ORGANISM: Homo sapiens
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Rab38 cDNA
123 <400> SEQUENCE: 9
124      acatagagct ccgggaaacg tcggtgccca gcccggctg tgcttcccag agcaagctcc 60
125      aggtcccgca agaccgcgg gcctccagga tgcagacacc tcacaaggag cacctgtaca 120
126      agctgctggt gatcggcgac ctgggtgtgg gcaagaccag cattatcaag cgctatgtgc 180
127      accaaaactt ctctcgacac taccgggcca ccattggtgt ggacttcgcg ctgaagggtgc 240
128      tccactggga cccagagacg gtggtgcgct tgcagctctg ggacattgct ggtcaagaaa 300
129      gatttggaag catgacaaga gtttattacc ggggaagctat gggggcattt attgtttttg 360
130      atgtcaccag accagccaca tttgaagccg tggcaaagtg gaaaaatgat ttggactcaa 420
131      agttaacgct cctaattggt aagccagtgt cagtggttct gttggccaac aaatgtgacc 480
132      aagggaagga tgtgcttatg aacaatggac tcaagatgga ccagttctgc aaggagcatg 540
133      gcttcgtagg atggtttgaa acatcagcca aggaaaacat aaacattgat gaagcctcaa 600
134      gatgcctggt caagcacata cttgcaaatg agtgtgacct cctagagtct atagaaccgg 660
135      acattgtgaa gccccatctc acatcgccca aggttgtcag ctgctctggc tgtgccaaat 720
136      cctagaaggc tcctctgctg gcatatgaca gacagaaccc gtggccctca tgaatcgtgc 780
137      ttcagttttt ccttattacc attttgggta agcgtcagga tagggaagca catgtgacaa 840
138      gccaaagata catgactgta tgggtcctgt caaagaggaa cagcaaagt tctttatgtg 900
139      ttttcccacc ccacagcac agtgtttaca agctttttaa atattagtct gtcacaatat 960
140      gctgttttat cattgagcaa agccactcag ggacacagac agccctaata tttgttcctt 1020
141      taaatcaaca aaggcttctg gtcttcttga gaaggggaat aacagagcaa ggcagagggtc 1080
142      aagctaagtg tggggatttg tcttgccctg gtgtgtcttt gttaggtat caatttggtc 1140
143      ccgggtggtc tgataggctc attaaataga aaccattcat ggtagacctt aggggtgkct 1200
144      gtgatgttct tcttcagagt cgtgtgcaca ggcagcctgg gcttttggtg tcaactgctg 1260
145      tgccctgaat gctggtttta ctgaaaactg tatggaaaag tctgctccct gtatgtgcct 1320
146      ttctttcagc ttctctgac tcaagctgca ggactcttct gtatgtggaa gatattatat 1380
147      atatattttt cacaagtgaa aaataaaaca ttaaaaatgc tgtttcctg tttctgata 1439
149 <210> SEQ ID NO: 10
150 <211> LENGTH: 291
151 <212> TYPE: DNA

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152 <213> ORGANISM: Homo sapiens
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Rab38 exon 1 and surrounding intron sequence
155 <400> SEQUENCE: 10
156   acatagagct ccgggaaacg tcggtgccca gccccggctg tgcttcccag agcaagctcc 60
157   aggtctccgca agaccgcgcg gcctccagga tgcagacacc tcacaaggag cacctgtaca 120
158   agctgctggt gatcggcgac ctgggtgtgg gcaagaccag cattatcaag cgctatgtgc 180
159   accaaaactt ctctctgcac taccgggcca ccattggtgt ggacttcgcg ctgaagggtgc 240
160   tccactggga cccagagacg gtggtgcgct tgcagctctg ggacattgct g 291
162 <210> SEQ ID NO: 11
163 <211> LENGTH: 281
164 <212> TYPE: DNA
165 <213> ORGANISM: Homo sapiens
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Rab38 exon 2
168 <400> SEQUENCE: 11
169   gtcaagaaag attttgaaac atgacaagag tttattaccg ggaagctatg ggggcattta 60
170   ttgtttttga tgtcaccaga ccagccacat ttgaagccgt ggcaaagtgg aaaaatgatt 120
171   tggactcaaa gttaacgctc cctaattggt agccagtgtc agtggttctg ttggccaaca 180
172   aatgtgacca agggaaggat gtgcttatga acaatggact caagatggac cagttctgca 240
173   aggagcatgg cttcgtagga tggtttgaaa catcagccaa g 281
175 <210> SEQ ID NO: 12
176 <211> LENGTH: 868
177 <212> TYPE: DNA
178 <213> ORGANISM: Homo sapiens
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Rab38 exon 3 and surrounding intron sequence
181 <400> SEQUENCE: 12
182   ggaaaacata aacattgatg aagcctcaag atgcctggtc aagcacatac ttgcaaatga 60
183   gtgtgacctc ctagagtcta tagaaccgga cattgtgaag ccccatctca catcgcccaa 120
184   gggtgtcagc tgctctggct gtgccaaatc ctagaaggct cctctgctgg catatgacag 180
185   acagaaccgg tggccctcat gaatcgtgct tcagttttcc cttattacca ttttgggtaa 240
186   gcgtcaggat agggaagcac atgtgacaag ccaaagatac atgactgtat ggttcctgtc 300
187   aaagaggaac agcaaatgtt ctttatgtgt tttcccaccc catcagcaca gtgtttacaa 360
188   gcttttaaaa tattagtctg tcacaatatg ctgttttatc attgagcaaa gccactcagg 420
189   gacacagaca gccctaatat ttgttccttt aaatcaacaa aggcctctgg tcttcttgag 480
190   aaggggaata acagagcaag gcagaggcca agctaagtgt ggggatttgt cttgccctgg 540
191   tgtgtccttg ttcagggtatc aatttggtcc cggtggtct gataggctca ttaaatagaa 600
192   accattcatg gtagacctaa ggggtgkctg tgatgtttct cttcagagtc gtgtgcacag 660
193   gcagcctggg cttttgttgt cacttgcgtg gccctgaatg ctggtttaac tgaaaactgt 720
194   atggaaagat ctgctccctg tatgtgcctt tctttcagct tcctctgact caagctgcag 780
195   gactcttctg tatgtggaag atatattata tatatttttc acaagtgaac aataaaacat 840
196   taaaaatgct gtttccctgt ttctgata 868
198 <210> SEQ ID NO: 13
199 <211> LENGTH: 45
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic TYRP15'T3F DNA

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205   gcgcgaatta accctcacta aagggtctga gcaccctgt cttct           45
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208 <211> LENGTH: 45
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic TYRP15'T7R DNA
213 <400> SEQUENCE: 14
214   gcgcgtaata cgactcacta tagggccag ttgcaaaatt ccagt           45
216 <210> SEQ ID NO: 15
217 <211> LENGTH: 47
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic MLSN R T7 DNA
222 <400> SEQUENCE: 15
223   gcgggtaata cgactcacta taggggccac aaacatgtcc tacttac       47
225 <210> SEQ ID NO: 16
226 <211> LENGTH: 44
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
229 <220> FEATURE:
230 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic MLSN FT3 DNA
231 <400> SEQUENCE: 16
232   gcgcgaatta accctcacta aagggaagct tccggactct ctac           44
234 <210> SEQ ID NO: 17
235 <211> LENGTH: 21
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR
240   amplification primer Rab38 Ex1F
241 <400> SEQUENCE: 17
242   taggaaggag gattaaaccc g           21
244 <210> SEQ ID NO: 18
245 <211> LENGTH: 21
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR
250   amplification primer Rab38 Ex 1R
251 <400> SEQUENCE: 18
252   gaactcctca tggtcactc c           21
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256 <212> TYPE: DNA
257 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 07/14/2006  
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The rules require that a line not exceed 72 characters in length. This includes spaces.

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Seq#:14; Line(s) 212  
Seq#:15; Line(s) 221  
Seq#:16; Line(s) 230

**VERIFICATION SUMMARY**

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Input Set : N:\Crf4\Refhold\10\_folder\J501611A.raw

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L:9 M:270 C: Current Application Number differs, Wrong Format